

IMPLEMENTATION SCHEDULE

The Implementation Schedule that follows lists recovery task priorities; task numbers; task descriptions; duration of tasks; potential or participating responsible parties; total cost estimate and estimates for the next four or five years, if available; and comments. These tasks, when accomplished, will lead to recovery of bull trout in the coterminous United States as discussed in Chapter 1 of this recovery plan.

Parties with authority, responsibility, or expressed interest to implement a specific recovery task are identified in the Implementation Schedule. Listing a responsible party does not imply that prior approval has been given or require that party to participate or expend any funds. However, willing participants will benefit by demonstrating that their budget submission or funding request is for a recovery task identified in an approved recovery plan and, therefore, part of a coordinated effort to recover bull trout. In addition, section 7 (a)(1) of the Endangered Species Act directs all Federal agencies to use their authorities to further the purposes of the Act by implementing programs for the conservation of threatened or endangered species.

The following are definitions to column headings used in the Implementation Schedule:

Priority Number: All priority 1 tasks are listed first, followed by priority 2 and priority 3 tasks.

Priority 1: All actions that must be taken to prevent extinction or to prevent the species from declining irreversibly in the foreseeable future.

Priority 2: All actions that must be taken to prevent a significant decline in species population or habitat quality or to prevent some other significant negative impact short of extinction.

Priority 3: All other actions necessary to provide for full recovery (or reclassification) of the species.

Task Number and Task Description: Recovery tasks as numbered in the recovery outline. Refer to the action narrative for task descriptions.

Task Duration: Expected number of years to complete the corresponding task. Study designs can incorporate multiple tasks, which, when combined, can reduce the time needed for task completion.

Responsible or Participating Party: The following organizations are those with responsibility or capability to fund, authorize, or carry out the corresponding recovery task.

Federal Agencies:

BLM	Bureau of Land Management
FERC	Federal Energy Regulatory Commission
NMFS	National Marine Fisheries Service
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

State Agencies:

ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OSP	Oregon State Police
OWRD	Oregon Water Resources Department

Others:

EWEB	Eugene Water and Electric Board
PGE	Portland General Electric Company
RUT	Recovery Unit Team
WC	Watershed Councils
WeyCo	Weyerhaeuser Corporation, Inc.
WRI	Willamette Restoration Initiative

Bolded type indicates the agency or agencies that have the lead role for task implementation and coordination, though not necessarily sole responsibility.

Cost Estimates: Cost estimates are rough approximations and are provided only for general guidance. Total costs are estimated for the duration of the task and also itemized annually for the next five years. Total costs include estimates of expenditures by local, Tribal, State, and Federal governments and by private business and individuals. These costs are attributed to bull trout conservation but other aquatic species will also benefit. Cost estimates are not provided for tasks which are normal agency responsibilities under existing authorities.

An asterisk (*) in the total cost column indicates ongoing tasks that are currently being implemented as part of normal agency responsibilities under existing authorities. Because these tasks are not being done specifically or solely for bull trout conservation, they are not included in the cost estimates. Some of these efforts may be occurring at reduced funding levels and/or in only a small portion of the watershed.

Double asterisk (**) in the total cost column indicates that estimated costs for these tasks are not determinable at this time. Input is requested to help develop reasonable cost estimates for these tasks.

Triple asterisk (***) indicates costs are combined with or embedded within other related tasks.

Implementation Schedule for the bull trout recovery plan: Willamette River Recovery Unit										
Task Priority	Task Number	Task Description	Task Duration (years)	Responsible Parties	Cost Estimates (in \$1,000 units)					Comments
					Total Costs	Year 1	Year 2	Year 3	Year 4	
1	1.2.1	Assess feasibility of restoring fish passage at dams to reconnect fragmented bull trout populations Upper Willamette River core area	5	EWEB, USACE, USFWS, ODFW, NMFS	50		20	20	10	Proposed biological assessment/ biological opinion study of passage feasibility for Carmen-Smith
1	1.2.2	Prioritize and then implement fish passage at dams to reconnect fragmented bull trout populations in the Upper Willamette River core area	10	EWEB, USACE, USFWS, ODFW, NMFS	1,000 to 5,000					Cost depends on details of proposal; any major structural work probably done as part of post-2008 project relicensing
1	1.2.3	Document, enumerate, and evaluate entrainment at Cougar Dam as a factor influencing bull trout status in the South Fork McKenzie River	3	USACE, USFWS, ODFW	90	30	30	30		
1	1.2.4	Provide fish protection at water diversions and associated structures	3-4	EWEB, FERC, ODFW, Private individual	17,000		13 M	4 M		Fish screen, tailrace barriers, ladders

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1	1.2.5	Correct manmade barriers that impede bull trout access to suitable habitat	3	USFS, ODOT	725	5	180	360	180	
1	1.2.6	Identify and evaluate opportunities for improving passage through dams to increase survival rates	2-5	EWEB, USACE	50		20	20	10	EWEB proposed study of entrainment/ mortality for Trail Bridge
1	1.4.1	Review and evaluate reservoir operations and provide recommendations through Federal Energy Regulatory Commission relicensing process and/or Federal consultation	8	EWEB, USACE, ODFW, FERC, NMFS, USFWS, USFS	400	50	50	50	50	Figures are for Carmen-Smith relicensing; EWEB proposed study; relicensing process to 2008
1	3.1.1	Continue reestablishment of bull trout into the Upper Middle Fork Willamette River	10	ODFW, USFS, EWEB, USFWS	400	40	40	40	40	Fry reintroductions limited to 5–6 years; some sites begun later
1	5.5.1	Assess feasibility of reestablishing bull trout in the Clackamas and Santiam River basins	3	ODFW, USFWS, USFS, PGE	150	50	50	50		

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1	5.5.3	Conduct physical and biological surveys in the Upper Willamette River core area to determine current abundance of populations and factors preventing or limiting productivity	5	ODFW, USFS, EWEB, USACE	500	100	100	100	100	Proposed biological assessment/ biological opinion study of habitat and other possible limiting factors (e.g., brook trout) above dams as part of passage study, task 1.2.1
2	1.2.7	Improve survival below the regulating outlet at Hills Creek Dam by addressing inadequate plunge pool at low or moderate flows		USACE	**					The cost will depend on whether operational or structural solution is implemented
2	3.1.2	Incorporate bull trout recovery actions into the ODFW's Willamette River basin fish management plans	Ongoing	ODFW, USFWS	*					May require action by Fish and Wildlife Commission

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2	3.1.3	Coordinate bull trout recovery with management plans and with recovery and other efforts for other species, such as chinook salmon and steelhead trout	3	ODFW, USFS, USFWS, NMFS	60	20	20	20		
2	3.1.5	Restore historic prey base by reestablishing spring chinook salmon into habitats occupied by bull trout	Ongoing	ODFW, USFS	*					Covered under existing programs
2	3.2.1	Conduct a creel census at Trail Bridge Reservoir to document angling pressure and mortality	1	ODFW, EWEB	15		15			Proposal submitted to USFWS for section 6 funding
2	5.2.1	Assess habitat conditions and capacity in tributaries with historic or potential habitat in the Upper Willamette core area	4	ODFW, USFS, USFWS	40	10	10	10	10	
2	5.2.2	Assess capacity of habitat in the Santiam and Clackamas River basins to support self-sustaining populations of bull trout	4	ODFW, USFS, USFWS	40	10	10	10	10	
2	5.5.2	Conduct additional field sampling to determine presence/absence of bull trout in the Clackamas and Santiam River basins	3	USFS, ODFW, USFWS	150	50	50	50		

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2	6.2.1	Identify opportunities to incorporate bull trout recovery actions into the relicensing process for hydroelectric projects in the Willamette Recovery Unit	8	USFWS, FERC, USACE, EWEB, USFS, ODFW, PGE	***					Carmen-Smith; see also task 1.4.1
3	1.1.1	Complete access and travel management plan for Federal lands in the upper Middle Fork Willamette River	3	USFS	75	35	20	20		Through Access and Travel Management Planning
3	1.1.2	Assess turbidity from operation of Blue River project for impacts on bull trout	3	USACE	150	50	50	50		
3	1.1.3	Identify and eliminate industrial, agricultural, residential, and sewage effluent runoff (nutrients and chemicals) that impact bull trout in the mainstem Middle Fork Willamette River and the lower mainstem McKenzie River	Ongoing	ODEQ	***					Much of this task will be covered in the total maximum daily load (TMDL) process
3	1.1.4	Investigate effects on bull trout of thermal effluent discharged into the McKenzie River	3	WeyCo	300	100	100	100		

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3	1.5.1	Identify existing road systems that have a high risk of adversely affecting bull trout streams	Ongoing	USFS	120	30	30	30	30	
3	1.5.2	Update the watershed analysis for the Upper Middle Fork Willamette River	1	USFS	***					Upper Middle Fork Willamette River watershed analysis revision; cost covered under task 1.3.1
3	3.1.4	Coordinate bull trout recovery monitoring in the Willamette River basin with the monitoring program for the Oregon Plan for Salmon and Watersheds	4 Ongoing	USFS, BLM, ODFW , USFWS, NMFS, WRI	50	5	15	15	15	
3	6.1.1	Participate in efforts by local and regional (basinwide) watershed groups and others to accomplish site-specific protection and restoration activities	25	All agencies, WC	475	15	15	15	15	McKenzie River watershed council has set of recommendations
3	6.1.2	Coordinate with other agencies, research scientists, and conservation organizations	Ongoing	RUT , WC	*					

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3	6.2.2	Identify and develop opportunities for collaboration between total maximum daily load planning (Clean Water Act) and bull trout recovery unit planning and implementation	8	ODEQ, USFS, USACE	***					Part of total maximum daily load (TMDL) planning process